

REMARKS**Amendment to Claims**

Claims 1, 5, 10, and 14 have been amended. Support for these amendments can be found on page 9, lines 6-20 of the Specification as originally filed. Claims 4 and 13 have been cancelled. No new matter is introduced.

35 U.S.C. § 103(a) Rejection of Claims 1-22

Claims 1-3, 6-12 and 15-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Russell-Falla et al. (U.S. Patent No. 6,675,162) (hereinafter “Russell-Falla”) in view of Chakrabarti et al. (U.S. Patent No. 6,389,436) (hereinafter “Chakrabarti”) in further view of Shmueli et al. (U.S. Patent No. 6,442,555) (hereinafter “Shmueli”).

Claims 4, 5, 13 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Russell-Falla in view of Chakrabarti in view of Shmueli and in further view of Haug et al. (U.S. Patent No. 6,556,964) (hereinafter “Haug”).

Applicants amend base claim 1 incorporating elements of claim 4. Similarly, Applicants amend base claim 10 incorporating elements of claim 13. Accordingly, Applicants respond to the rejections of Claims 1-9, 19, and 21; and 10-18, 20, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Russell-Falla in view of Chakrabarti in view of Shmueli and in further view of Haug. Applicants respectfully disagree.

Applicants’ amended base claim 1 recites in part, “mathematically combining the probabilities from all possible combinations of the test results and hypothesis values with respect to content of Web pages of determined content type with the test results of the subject Web page of undetermined content type using at least one Bayesian network,” where the underline text indicates elements added by way of this Amendment.

Briefly, Applicants’ amended claim 1 uses a series of tests, statistical training, and mathematical combination of the test results to produce a list of the potential content types and an accurate measure of the confidence level associated with each type. Specification, page 9, line 6-page 10, line 8. Applicants’ claimed invention, after running tests on a set of Web pages with known content types to calculate the statistical conditional probabilities for all possible combinations of test outcomes and hypothesis values, and running same tests on a subject Web

page with unknown content types and collects the test results, combines the calculated statistical conditional probabilities with the test results to calculate a confidence level for each of the potential content types. *Id.* In this way, Applicants' amended claim 1 produces a conclusion by first measuring the statistical connection between every possible test outcome and the target page content types, and then combining the measured statistical connections with test results of web pages of unknown content type. Specification, page 12, lines 11-15.

More significantly, Applicants' claimed invention combines or otherwise considers all possible outcomes, even those with low probability of occurrence. For example, in the comprehensive example presented in Applicants' Specification on page 16, line 8 - page 30, line 11, to provide some evidence that a hypothesis (H) hypothesizing that a page contains a press release is true (H=True) or false (H=False), Applicants' claimed invention performs Test 1 (T1) to test whether the page has a title (T1=True) or not (T1=false). The probability that a subject web page does not have a title (T1=False) given that the subject web page contains a press release (H=True) is low ($P(T1=False|H=True) = \%1$), while the probability that a subject web page does have a title (T1=True) given that the subject web page contains a press release (H=True) is high ($P(T1=True|H=True) = \%98$). Applicants' claimed invention combines not just the probabilities of these combinations, but the probabilities of all possible combinations, viz., $P(T1=True|H=True)$, $P(T1=True|H=False)$, $P(T1=False|H=True)$, and $P(T1=False|H=False)$.

In stark contrast, the Russell-Falla-Chakrabarti-Shmueli-Haug combination teaches away from Applicants' "mathematically combining the probabilities from all possible combinations of the test results and hypothesis values with respect content of Web pages of determined content type with the test results of the subject Web page of undetermined content type using at least one Bayesian network."

Russell-Falla, for example, describes using a single set of desired outcomes (a rated list) to correct a neural network. *See* Russell-Falla, column 7, line 25 – column 8, line 8, (In a technique known as back-propagation, an error value is determined by comparing a list of web pages having weights of random values against a rated list of training pages. The determined error values are then applied to adjust the list of weights incrementally up or down in a direction that will improve accuracy of the rating).

Furthermore, Russell-Falla cannot teach Applicants' "mathematically combining probabilities from all possible combinations of the test results and hypothesis values," because the results would be nonsensical. To combine all possible combinations as claimed by Applicants requires Russell-Falla designating each training page as both good and bad. A first error value determined from the first set of desired outcomes (e.g., training pages designated as good) and a second error value determined from the second set of desired outcomes (e.g., training pages designated as bad) would be the complete opposite of one another. As a result, the net weight adjustment would be zero because applying the first error value would adjust the weights in one direction, while applying the second error value would adjust the weights back in the opposite direction.

In another example, Haug also describes using a single set of desired outcomes (corrected codes) to correct results. *See* Haug, column 8, line 62-column 9, line 28, (Corrected codes are manually entered for any case in which a system is unable to generate a code, or generated an incorrect code. Corrected codes are then correlated with the originally generated codes). Accordingly, Applicants respectfully submit that the Russell-Falla-Chakrabarti-Shmueli-Haug combination neither teaches nor suggests Applicants' feature of "mathematically combining probabilities from all possible combinations of the test results and hypothesis values."

In the alternative, Applicants respectfully submit that Russell-Falla, Chakrabarti, Shmueli, and Haug cannot be combined as asserted to produce Applicants' claimed invention because the combination simply cannot function together. For example, Russell-Falla and Haug cannot be combined because Russell-Falla only provides a single list as output, while Haug in contrast must be provided with possible sets as input.

Russell-Falla does not and cannot teach providing an output of possible adjusted weights because Russell-Falla applies an error value to adjust a list of weights incrementally up or down. *See* Russell-Falla, column 7, line 25-column 7, line 19 referring to FIG. 4. Huag does not and cannot teach being provided with a single set as input because Huag selects the highest probability state. *See* Huag, column 8, lines 25-60, referring to FIG. 6. It is not possible to combine Russell-Falla and Huag without modifying either the output of Russell-Falla or the input of Huag.

For the foregoing reasons, at least Russell-Falla and Huag cannot be combined functionally. As such, Applicants respectfully submit that the asserted combination of Russell-Falla, Chakrabarti, Shmueli, and Haug cannot be combined successfully. Accordingly, Applicants respectfully submit that base claim 1 as now amended overcomes the 103 rejection and respectfully request that the claim be allowed to issue.

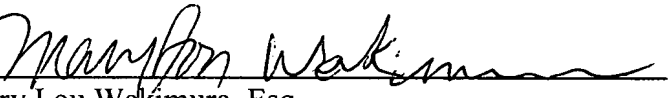
Applicants' amended base claim 10 recites similar features as amended base claim 1 and as such, should be allowed for similar reasons. Claims 2-9, 19, and 21 depend from claim 1 and claims 11-18, 20, and 22 depend from 10 and as such, should be allowed for the same reason as the claims from which they depend.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims (claim 1-3, 5-12, and 14-22) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Date: *11/29/07*